

REMARKS

Herein, the "Action" or "Office Action" refers to the Office Action dated May 23, 2003.

Applicant respectfully requests reconsideration and allowance of all of the claims of the application. Claims 1-40 are presently pending. Claims amended herein are 13-18, and 31. No claims are cancelled herein. No new claims are added herein.

The Applicant expressly grants permission to the Office to interpret all pending claims of this application.

Prior Art Status of References

Applicant does not explicitly or implicitly admit that any reference is prior art. Nothing in this communication should be considered an acknowledgement, acceptance, or admission that any reference is considered prior art.

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Substantive Claim Rejections

Claim Rejections under § 102

The Office rejects claims 1-2, 5-6, 8-9, 11-13, 15-16, 18-19, 21, 24-26, 28-35, and 37-39 under 35 U.S.C. § 102(e). Applicant traverses these rejections and asks that they be withdrawn and the case passed along to issuance.

The Office's rejections are based upon the following reference:

- **Hester:** *Hester et al.*, U.S. Patent No. 6,105,101.

Applicant expressly reserves the right to file a § 131 declaration with respect to Hester.

Claim Rejections under § 103

The Office rejects claims 3-4, 7, 10, 14, 17, 20, 22-23, 27, 36, and 40 under § 103. Applicant traverses these rejections and asks that they be withdrawn and the case passed along to issuance.

The Office's rejections are based upon the following references:

- **Hester;** and
- **Richman,** *Richman et al.*, U.S. Patent No. 5,655,148.

Applicant expressly reserves the right to file a § 131 declaration with respect to Richman.

1
2 **Claims 1-11 and 29-40**

3 **Claim 1** recites a method for controlling access to storage loci in a
4 *common configuration data structure*, the method comprising:

- 5
- 6 • receiving an attempt to access a first storage locus in the *common configuration data structure* from a program module;
 - 7 • determining whether to direct such attempt to at least a second locus in the *common configuration data structure* with the program module unaware that it is accessing the second locus.

8 **Claim 9** recites a method for controlling access to storage loci in a
9 *common configuration data structure*, the method comprising:

- 10
- 11 • receiving an attempt to access a first storage locus in the *common configuration data structure* from a program module;
 - 12 • directing such attempt to at least a second locus in the *common configuration data structure*, the program module being unaware that it is accessing the second locus.

13
14 **Claim 29** recites a method of access redirection and entry reflection, the
15 method comprising:

- 16
- 17 • controlling access to storage loci in a *common configuration data structure* of multiple storage loci, the controlling comprising:
 - 18 ○ receiving an attempt to access a first storage locus in the *common configuration data structure* from a program module;
 - 19 ○ directing such attempt to at least a second locus in the *common configuration data structure*, the program module being unaware that it is accessing the second locus;
 - 20 • replicating modified data in storage loci, the replicating comprising:
 - 21 ○ searching multiple storage loci for modified data;
 - 22 ○ finding modified data in at least one storage locus;
 - 23 ○ copying selected modified data from the storage locus to at least another storage locus.

24 **Claim 30** recites a computer-readable medium having computer-executable
25 instructions that, when executed by a computer, perform a method for replicating

1 data in storage loci of a *common configuration data structure* of multiple storage
2 loci, the method comprising:

- 3 • searching multiple storage loci of the *common configuration data*
4 *structure* for modified data;
- 5 • finding modified data in a first storage locus;
- 6 • copying selected data from the first storage locus to at least a second
storage locus.

7 As amended, **Claim 31** recites an apparatus comprising:

- 8 • a processor;
- 9 • an access-redirector executable on the processor to:
 - 10 ○ receive an attempt to access a first storage locus in a *common*
11 *configuration data structure* from a program module;
 - 12 ○ redirect such attempt to at least a second locus in the *common*
13 *configuration data structure*, the program module being
14 unaware that it is accessing the second locus.

15 **Claim 32** recites an apparatus comprising:

- 16 • a processor;
- 17 • an entry-reflector executable on the processor to:
 - 18 ○ search multiple storage loci of a *common configuration data*
19 *structure* for modified data;
 - 20 ○ find modified data in a first storage locus;
 - 21 ○ copy selected data from the first storage locus to at least a
22 second storage locus.

23 **Claim 33** recites an operating system comprising:

- 24 • a *common configuration data structure* containing storage loci for
25 storing configuration information ("config-info");
- a loci-access redirector comprising:
 - receiver for receiving an attempt to access a first storage
locus in the *common configuration data structure* from a
program module;
 - director for directing such attempt to at least a second locus in
the *common configuration data structure*, the program
module being unaware that it is accessing the second locus.

Claim 37 recites an operating system comprising:

- a *common configuration data structure* containing storage loci for
storing configuration information ("config-info");
- a loci-entry reflector comprising:

- searcher for searching multiple storage loci of the *common configuration data structure* for modified data and for finding modified data in a first storage locus;
- replicator for copying selected data from the first storage locus to at least a second storage locus.

Claim 39 recites a computer-readable medium having a *common configuration data structure* data structure, comprising:

- a first storage locus containing configuration information (“config-info”) for a first version of a program module;
- a second storage locus containing config-info for a second version of the program module.

The Office argues that Hester anticipates all of these claims. Applicant respectfully disagrees.

Applicant submits that Hester discloses a method for performing *BIOS interrupt calls*. As Hester states, the Basic Input/Output System (BIOS) is typically coded into a computer system’s ROM to provide the “basic instructions for controlling system hardware” (see Column 1, Lines 44-46 and emphasis added).

Applicant respectfully submits that BIOS on which Hester operates is different from the *common configuration data structure*, which is recited in the claims. Applicant discusses the concepts of configuration, configuration databases, and common configuration data structures in the specification beginning on page 3. An excerpt is provided below:

Configuration

Configuration is the way a system is set up, or the assortment of components that make up the system. Configuration can refer to either hardware *or software*, or the combination of both. For instance, a typical configuration for a PC consists of 32MB (megabytes) main memory, a floppy drive, a hard disk, a modem, a CD-ROM drive, a VGA monitor, and an operating system.

1 Many software products require that the computer have a
2 certain minimum configuration. For example, the software might
3 require a graphics display monitor and a video adapter, a particular
4 microprocessor, and a minimum amount of main memory.

5 When a person installs a new device or program, she
6 sometimes needs to configure it, which means to set various
7 switches and jumpers (for hardware) *and to define values of*
8 *parameters (for software)*. For example, the device or program may
9 need to know what type of video adapter you have and what type of
10 printer is connected to the computer. Thanks to new technologies,
11 such as Plug-and-Play, much of this configuration is performed
12 automatically.

13 Configuration Databases

14 Software applications typically employ one or more
15 configuration databases *to store configuration settings*. Under some
16 OSs (such as Windows® 3.1 and MS-DOS®), multiple
17 configuration databases were used by the OS and the applications.
18 There were files for starting the system (e.g., CONFIG.SYS and
19 AUTOEXEC.BAT). There were files for connecting to a network
20 (e.g., NETWORK.INI). There were files for running applications
21 (e.g., WIN.INI and SYSTEM.INI).

22 Each configuration file had its own rules and structure.
23 Maintaining these files was a difficult chore for the OS. Providing a
24 limited degree of synchronization between these files was also a
25 difficult chore for the OS.

26 Common Configuration Data Structure

27 With the advent of more advanced OSs (such as Windows
28 NT® and Windows® 95), a common configuration data structure
29 was introduced. It is called the "Registry." *All configuration*
30 *settings are stored therein* (except for other legacy configuration
31 files that remained for backward compatibility reasons).

32 Herein, a *common configuration data structure refers to a*
33 *set of multiple configuration databases used by more than one*
34 *version of a program module* (such as an application). In addition,
35 a *common configuration data structure refers to a single*
configuration database (such as the Registry) used by more than

1 *one version of a program module* (such as an application). A
2 configuration database is often stored as one or more configuration
3 files on the storage system of a computer.

4 Applicant submits that Hester does not appear disclose or suggest any such
5 feature.

6 Instead, Hester's method appears to be designed to "get the attention of
7 some portion of the computer system" (see Column 1, lines 53-54) so that it can
8 control the system hardware. Hester does not appear to disclose a BIOS does not
9 store *configuration settings* as Applicant defines and uses the term.

10 Applicant respectfully submits that a BIOS is not a configuration database,
11 nor is it a common configuration data structure as Applicant defines it. Instead, it
12 provides basic *instructions for controlling system hardware*. Moreover, Hester
13 calls such instructions in the BIOS. Hester does not appear to ever disclose an
14 interaction with anything in the BIOS but instructions.

15 For at least this reason, Applicant respectfully submits that these claims are
16 allowable. Accordingly, Applicant asks the Office to withdraw its rejections.

17 **Claims 2-8** are dependent upon claim 1 and are allowable as depending
18 from an allowable base claim. These claims are also allowable for their own
19 recited features which, in combination with those recited in claim 1, are neither
20 disclosed nor suggested by the references of record. The addition of the Richman
21 reference in the Office's rejection of claims 3, 4, and 7 is not seen to add anything
22 of significance, given the allowability of claim 1. Accordingly, Applicant asks the
23 Office to withdraw its rejections.
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1 **Claims 10-11** are dependent upon claim 9 and are allowable as depending
2 from an allowable base claim. These claims are also allowable for their own
3 recited features which, in combination with those recited in claim 9, are neither
4 disclosed nor suggested by the references of record. The addition of the Richman
5 reference in the Office's rejection of claim 10 is not seen to add anything of
6 significance, given the allowability of claim 9. Accordingly, Applicant asks the
7 Office to withdraw its rejections.

8
9 **Claims 34-36** depend upon claim 33 and are allowable as depending from
10 an allowable base claim. These claims are also allowable for their own recited
11 features which, in combination with those recited in claim 33, are neither disclosed
12 nor suggested by the references of record. The addition of the Richman reference
13 in the Office's rejection of claim 36 is not seen to add anything of significance,
14 given the allowability of claim 33. Accordingly, Applicant asks the Office to
15 withdraw its rejections.

16
17 **Claim 38** depends upon claim 37 and is allowable as depending from an
18 allowable base claim. This claim is also allowable for its own recited features
19 which, in combination with those recited in claim 37, are neither disclosed nor
20 suggested by the references of record. Accordingly, Applicant asks the Office to
21 withdraw its rejection.

22
23 **Claim 40** depends upon claim 39 and is allowable as depending from an
24 allowable base claim. This claim is also allowable for its own recited features
25 which, in combination with those recited in claim 39, are neither disclosed nor

1 suggested by the references of record. The addition of the Richman reference is
2 not seen to add anything of significance, given the allowability of claim 39.
3 Accordingly, Applicant asks the Office to withdraw its rejection.

4
5 **Claims 12-20**

6 **Claim 12** recites a method for directing an access to a storage locus in a
7 *common configuration data structure*, the method comprising:

- 8 • intercepting an attempt by a program module to access
9 *configuration information* (“config-info”) of the program module at
10 a first storage locus in the *common configuration data structure*;
- 11 • determining whether to redirect such attempt to at least a second
12 locus in the *common configuration data structure* with the program
13 module unaware that it is accessing its *config-info* at the second
14 locus.

15 **Claim 19** recites a method for directing an access to a storage locus in a
16 *common configuration data structure*, the method comprising:

- 17 • intercepting an attempt by a program module to access
18 *configuration information* (“config-info”) of the program module at
19 a first storage locus in the *common configuration data structure*;
- 20 • redirecting such attempt to at least a second locus in the *common*
21 *configuration data structure*, the program module being unaware
22 that it is accessing its *config-info* at the second locus.

23 The Office indicates that Hester anticipates these claims as well. Applicant
24 respectfully disagrees.

25 Applicant submits that Hester discloses a method for performing *BIOS*
interrupt calls. As noted earlier with respect to claims 1-11 and 29-40, Hester
does not disclose or suggest a *common configuration data structure* as Applicant
uses the term. Therefore, Hester cannot disclose or suggest the act of intercepting

1 an attempt by a program module to access *configuration information* for the
2 program module *within* the common configuration data structure.

3 For at least these reasons, Applicant respectfully submits that these claims
4 are allowable. Accordingly, Applicant asks the Office to withdraw its rejections.

5
6 **Claims 13-18** have been amended to depend upon claim 12 and are
7 allowable as depending from an allowable base claim. These claims are also
8 allowable for their own recited features which, in combination with those recited
9 in claim 12, are neither disclosed nor suggested by the references of record. The
10 addition of the Richman reference in the Office's rejection of claims 14 and 17 is
11 not seen to add anything of significance, given the allowability of claim 12.
12 Accordingly, Applicant asks the Office to withdraw its rejections.

13
14 **Claim 20** depends upon claim 19 and is allowable as depending from an
15 allowable base claim. This claim is also allowable for its own recited features
16 which, in combination with those recited in claim 19, are neither disclosed nor
17 suggested by the references of record. The addition of the Richman reference is
18 not seen to add anything of significance, given the allowability of claim 19.
19 Accordingly, Applicant asks the Office to withdraw its rejections.

20
21 **Claims 21-28**

22 **Claim 21** recites a method for replicating data in storage loci of a *common*
23 *configuration data structure* of multiple storage loci, the method comprising:
24
25

1 *searching* multiple storage loci of the common configuration data
2 structure *for modified data*;

3 *finding modified data* in a first storage locus;

- 4 • *copying* selected modified data from the first storage locus to at least
5 a second storage locus.

6 The Office argues that the features of claim 21 are inherent in claim 1.
7 Applicant respectfully disagrees.

8 Claim 1 recites a method for *controlling access*. Acts of claim 1 include
9 *receiving* an attempt to access a first storage locus and *determining* whether to
10 direct such attempt to at least a second storage locus. On the other hand, claim 21
11 recites a method for *replicating data*. Acts of claim 21 include *searching* multiple
12 storage loci for modified data, *finding* modified data, and *copying* modified data.

13 There are no express acts of searching, finding, or copying within claim 1
14 and Applicant does not see where they exist implicitly. The method of claim 1
15 operates whether or not there is modified data. Claim 21, on the other hand, deals
16 exclusively with the situation where modified data exists. Applicant respectfully
17 submits that the features of claim 21 are not inherent in claim 1. If the Office
18 maintains its rejection, Applicant respectfully requests clarification in the Office's
19 arguments.

P.25/25

Claims 22-28 depend, either directly or indirectly, upon claim 21 and are allowable as depending from an allowable base claim. These claims are also allowable for their own recited features which, in combination with those recited in claim 21, are neither disclosed nor suggested by the references of record. The addition of the Richman reference in the Office's rejection of claims 22, 23, and 27 is not seen to add anything of significance, given the allowability of claim 21. Accordingly, Applicant asks the Office to withdraw its rejections.

Conclusion

All pending claims are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the application. If any issues remain that prevent issuance of this application, the Office is urged to contact the undersigned attorney before issuing a subsequent Action.

Respectfully Submitted,

Dated:

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